

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form U3C
June 2015
Form must be Typed
Form must be completed
on a per well basis

**ANNUAL REPORT OF PRESSURE MONITORING,
FLUID INJECTION AND ENHANCED RECOVERY**

Complete all blanks - add pages if needed. Copy to be retained for five (5) years after filing date.

OPERATOR: License # _____
Name: _____
Address 1: _____
Address 2: _____
City: _____ State: _____ Zip: _____ + _____
Contact Person: _____
Phone: (_____) _____
Lease Name: _____
Well Number: _____

API No.: _____
Permit No.: _____
Reporting Year: _____
(January 1 to December 31)
____ - ____ - ____ - ____ Sec. ____ Twp. ____ S. R. ____ E W
(a/a/a/a)
_____ feet from N / S Line of Section
_____ feet from E / W Line of Section
County: _____

I. Injection Fluid:

Type (Pick one): Fresh Water Treated Brine Untreated Brine Water/Brine
Source: Produced Water Other (Attach list)
Quality: Total Dissolved Solids: _____ mg/l Specific Gravity: _____ Additives: _____
(Attach water analysis, if available)

II. Well Data:

Maximum Authorized Injection Pressure: _____ psi Injection Zone: _____
Maximum Authorized Injection Rate: _____ barrels per day
Total Number of Enhanced Recovery Injection Wells Covered by this Permit: _____ (Include TA's)

III.	Month:	Total Fluid Injected BBL	Maximum Fluid Pressure	Total Gas Injected MCF	Maximum Gas Pressure	# Days of Injection
	January	_____	_____	_____	_____	_____
	February	_____	_____	_____	_____	_____
	March	_____	_____	_____	_____	_____
	April	_____	_____	_____	_____	_____
	May	_____	_____	_____	_____	_____
	June	_____	_____	_____	_____	_____
	July	_____	_____	_____	_____	_____
	August	_____	_____	_____	_____	_____
	September	_____	_____	_____	_____	_____
	October	_____	_____	_____	_____	_____
	November	_____	_____	_____	_____	_____
	December	_____	_____	_____	_____	_____
	TOTAL	_____	_____	_____	_____	_____



Central Area Laboratory
12701 N. Santa Fe Ave, Suite 151
Oklahoma City, Oklahoma 73114

REPORT DATE: 2/21/2020

COMPLETE WATER ANALYSIS REPORT SSP v.2010

CUSTOMER:	PARADISE CREEK OIL AND GAS INC	ACCOUNT REP:	TREVOR PFANNENSTIEL
DISTRICT:	KANSAS	SAMPLE ID:	202010001253
AREA/LEASE:	LUEBBERS	SAMPLE DATE:	1/24/2020
SAMPLE POINT NAME	LUEBBERS 12-15	ANALYSIS DATE:	2/13/2020
SITE TYPE:	WELL SITES	ANALYST:	BS
SAMPLE POINT DESCRIPTION:	WELL HEAD		

PARADISE CREEK OIL AND GAS INC, LUEBBERS, LUEBBERS 12-15

FIELD DATA		ANALYSIS OF SAMPLE					
		ANIONS:		CATIONS:			
		mg/L	meq/L	mg/L	meq/L		
Initial Temperature (°F):	150	Chloride (Cl ⁻):	17323.0	488.7	Sodium (Na ⁺):	9557.1	415.9
Final Temperature (°F):	70	Sulfate (SO ₄ ²⁻):	1972.0	41.1	Potassium (K ⁺):	216.6	5.5
Initial Pressure (psi):	100	Borate (H ₃ BO ₃):	53.9	0.9	Magnesium (Mg ²⁺):	359.8	29.6
Final Pressure (psi):	15	Fluoride (F ⁻):	ND		Calcium (Ca ²⁺):	1354.6	67.6
		Bromide (Br ⁻):	ND		Strontium (Sr ²⁺):	42.1	1.0
pH:		Nitrite (NO ₂ ⁻):	ND		Barium (Ba ²⁺):	0.0	0.0
pH at time of sampling:	6.9	Nitrate (NO ₃ ⁻):	ND		Iron (Fe ²⁺):	0.5	0.0
		Phosphate (PO ₄ ³⁻):	1.2	0.0	Manganese (Mn ²⁺):	0.1	0.0
		Silica (SiO ₂):	ND		Lead (Pb ²⁺):	ND	
					Zinc (Zn ²⁺):	0.0	0.0
ALKALINITY BY TITRATION:							
	mg/L	meq/L					
Bicarbonate (HCO ₃ ⁻):	390.0	6.4			Aluminum (Al ³⁺):	ND	
Carbonate (CO ₃ ²⁻):	ND				Chromium (Cr ³⁺):	ND	
Hydroxide (OH ⁻):	ND				Cobalt (Co ²⁺):	ND	
					Copper (Cu ²⁺):	ND	
					Molybdenum (Mo ²⁺):	ND	
aqueous CO ₂ (ppm):	264.0	Formic Acid:	ND		Nickel (Ni ²⁺):	ND	
aqueous H ₂ S (ppm):	60.0	Acetic Acid:	ND		Tin (Sn ²⁺):	ND	
aqueous O ₂ (ppb):	ND	Propionic Acid:	ND		Titanium (Ti ²⁺):	ND	
		Butyric Acid:	ND		Vanadium (V ²⁺):	ND	
Calculated TDS (mg/L):	31216	Valeric Acid:	ND		Zirconium (Zr ²⁺):	ND	
Density/Specific Gravity (g/cm ³):	1.0191				Lithium (Li):	ND	
Measured Specific Gravity	ND				Total Hardness:	4917	N/A
Conductivity (mmhos):	ND						
Resistivity:	ND						
MCF/D:	No Data						
BOPD:	No Data						
BWPD:	No Data	Anion/Cation Ratio:	1.03				ND = Not Determined

SCALE PREDICTIONS BASED ON FIELD PROVIDED DATA; FUTHER MODELING MAY BE REQUIRED FOR VALIDATION OF SCALE PREDICTION RESULTS.

Conditions		Barite (BaSO ₄)		Calcite (CaCO ₃)		Gypsum (CaSO ₄ ·2H ₂ O)		Anhydrite (CaSO ₄)	
Temp	Press.	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)
70°F	15 psi		0.000	0.50	40.932	-0.14	0.000	-0.42	0.000
79°F	24 psi		0.000	0.49	39.684	-0.15	0.000	-0.39	0.000
88°F	34 psi		0.000	0.50	40.442	-0.15	0.000	-0.35	0.000
97°F	43 psi		0.000	0.52	41.980	-0.14	0.000	-0.31	0.000
106°F	53 psi		0.000	0.55	43.882	-0.14	0.000	-0.27	0.000
114°F	62 psi		0.000	0.58	46.315	-0.14	0.000	-0.22	0.000
123°F	72 psi		0.000	0.63	48.969	-0.13	0.000	-0.18	0.000
132°F	81 psi		0.000	0.67	51.545	-0.12	0.000	-0.13	0.000
141°F	91 psi		0.000	0.72	54.043	-0.11	0.000	-0.07	0.000
150°F	100 psi		0.000	0.76	56.468	-0.10	0.000	-0.02	0.000

Conditions		Celestite (SrSO ₄)		Halite (NaCl)		Iron Sulfide (FeS)		Iron Carbonate (FeCO ₃)	
Temp	Press.	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)
70°F	15 psi	0.03	2.174	-2.60	0.000	1.68	0.267	-1.25	0.000
79°F	24 psi	0.03	2.068	-2.61	0.000	1.58	0.265	-1.24	0.000
88°F	34 psi	0.03	2.090	-2.62	0.000	1.52	0.264	-1.20	0.000
97°F	43 psi	0.03	2.242	-2.63	0.000	1.48	0.263	-1.15	0.000
106°F	53 psi	0.04	2.524	-2.64	0.000	1.45	0.263	-1.10	0.000
114°F	62 psi	0.04	2.934	-2.65	0.000	1.45	0.262	-1.04	0.000
123°F	72 psi	0.05	3.466	-2.65	0.000	1.45	0.263	-0.98	0.000
132°F	81 psi	0.06	4.113	-2.66	0.000	1.46	0.263	-0.92	0.000
141°F	91 psi	0.08	4.867	-2.66	0.000	1.47	0.263	-0.86	0.000
150°F	100 psi	0.09	5.715	-2.66	0.000	1.48	0.263	-0.80	0.000

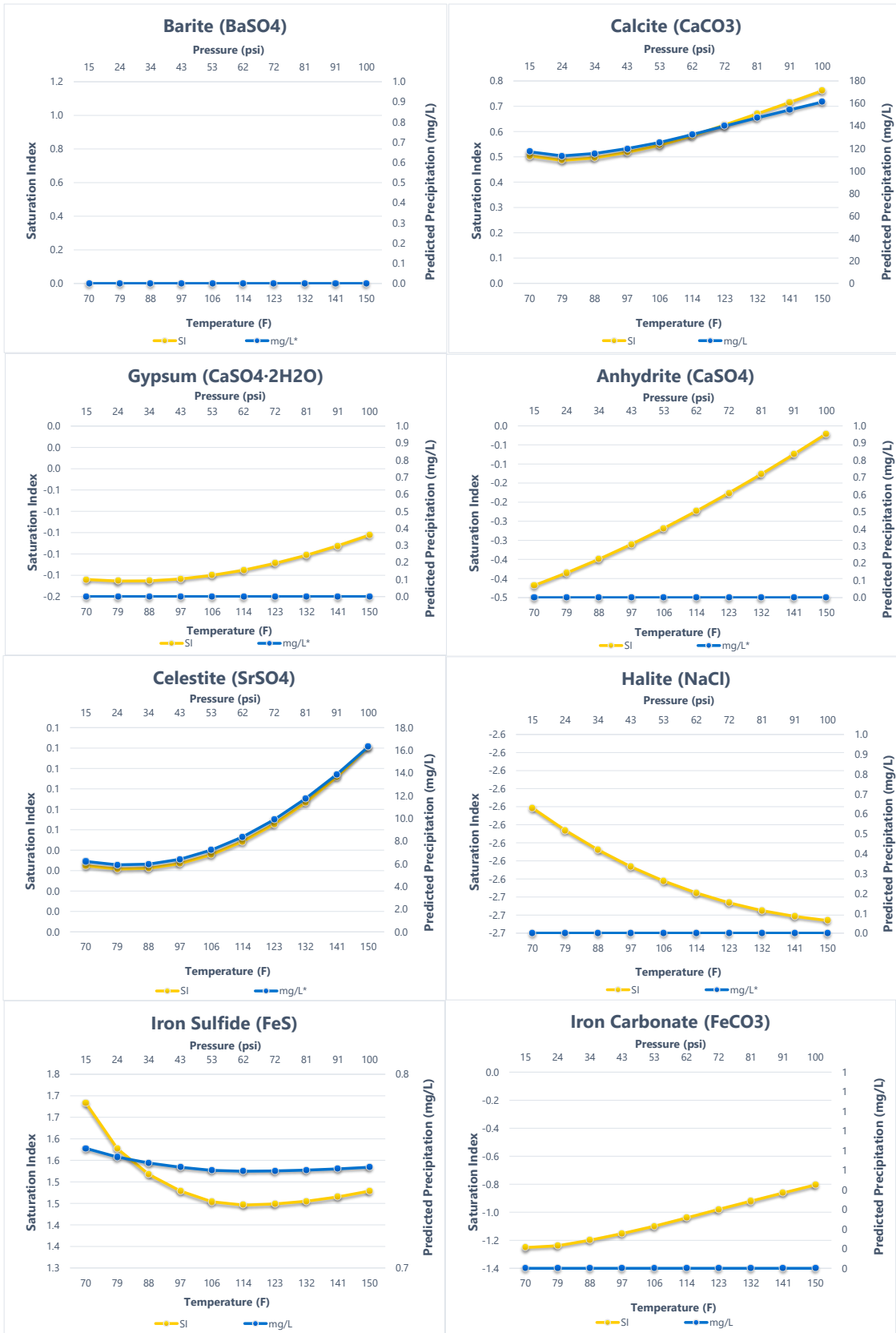
Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the eight (8) scales.

Note 3: Saturation Index predictions on this sheet use pH and alkalinity; %CO₂ is not included in the calculations.



Comments:



SCALE PREDICTIONS BASED ON FIELD PROVIDED DATA; FUTHER MODELING MAY BE REQUIRED FOR VALIDATION OF SCALE PREDICTION RESULTS.